

SEQUENCE LISTING

<110> Cao, Liangxian
 Trifillis, Panayiota

<120> METHODS FOR IDENTIFYING COMPOUNDS THAT MODULATE UNTRANSLATED
 REGION-DEPENDENT GENE EXPRESSION AND METHODS OF USING SAME

<130> 10589-012-999

<140> US 10/543,033
 <141> 2004-01-21 (371c date)

<150> PCT/US2004/001643
 <151> 2004-01-21

<150> 60/441,637
 <151> 2003-01-21

<160> 90

<170> PatentIn version 3.2

<210> 1
 <211> 14
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: consensus G-quartet element from
 synthetic sequences

<220>
 <221> misc_feature
 <222> 3, 7, 8, 11
 <223> n = a, t, c, or g

<220>
 <221> misc_feature
 <222> (7)..(8)
 <223> This represents one form of the sequence as described, other forms
 described may have up to five nucleotides in this variable region

<400> 1
 ggntggnggg ntgg

14

<210> 2
 <211> 14
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic G-quartet
 oligonucleotide

<220>
 <221> misc_feature
 <222> 3, 4, 7, 8, 11, 12
 <223> n = a, t, g or c

<220>
 <221> misc_feature
 <222> 3, 4, 7, 8, 11, 12
 <223> This represents one form of the sequence as described, other forms described have longer variable regions, typical is 2 - 10 nucleotides

<400> 2
 ggnnggnngg nngg 14

<210> 3
 <211> 61
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Antisense minus uORF NcoI primer

<400> 3
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 g 61

<210> 4
 <211> 19
 <212> RNA
 <213> Oryctolagus cuniculus

<220>
 <223> subunit of 15-LOX-DICE

<400> 4
 ccccrccuc uuccccaag 19

<210> 5
 <211> 152
 <212> DNA
 <213> Homo sapiens

<400> 5
 gcagaggacc agctaagagg gagagaagca actacagacc cccctgaaa acaaccctca 60
 gacgccacat cccctgacaa gctgccaggc aggtttctctt cctctcacat actgaccac 120
 ggetccaccc tctctcccct ggaaaggaca cc 152

<210> 6
 <211> 792
 <212> DNA
 <213> Homo sapiens

<400> 6
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 ggaacccaag cttagaactt taagcaacaa gaccaccact tcgaaacctg ggattcagga 180
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 aactcactgg ggcttacagc tttgatccct gacatctgga atctggagac cagggagcct 300
 ttggttcttg ccagaatgct gcaggacttg agaagacctc acctagaaat tgacacaagt 360

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cctcccatg	gagccagctc	cctctattta	tgtttgact	tgtgattatt	tattatttat	480
ttattattta	tttatttaca	gatgaatgta	tttatttggg	agaccgggg	atcctggggg	540
acccaatgta	ggagctgcct	tggttcagac	atgttttccg	tgaaaacgga	gctgaacaat	600
aggctgttcc	catgtagccc	cctggcctct	gtgccttctt	ttgattatgt	tttttaaaat	660
atttatctga	ttaagttgtc	taaacaatgc	tgatttggtg	accaactgtc	actcattgct	720
gagcctctgc	tccccagggg	agttgtgtct	gtaatcgccc	tactattcag	tggcgagaaa	780
taaagtttgc	tt					792

<210> 7
 <211> 21
 <212> RNA
 <213> Homo sapiens

<220>
 <223> Group I AU-Rich element(ARE) cluster of 3'untranslated region

<400> 7
 auuuauuuau uuauuuauuu a 21

<210> 8
 <211> 40
 <212> DNA
 <213> Homo sapiens

<400> 8
 kctggaggat gtggctgcag agcctgctgc tcttgggcac 40

<210> 9
 <211> 289
 <212> DNA
 <213> Homo sapiens

<400> 9						
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gaccaagggg	tgggccacag	ccatgggtggg	agtggcctgg	acctgccctg	ggccacactg	120
acctgatac	aggcatggca	gaagaatggg	aatattttat	actgacagaa	atcagtaata	180
tttatatatt	tatattttta	aaatatttat	ttattttattt	atttaagtgc	atattccata	240
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<210> 10
 <211> 7008
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Expression Vector pCMRI

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cgagcaaaaat	ttaagctaca	acaaggcaag	gcttgaccga	caattgcatg	aagaatctgc	180
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gattattgac	tagttattaa	tagtaatcaa	ttacgggggc	attagttcat	agcccatata	300
tggagttccg	cgttacataa	cttacggtaa	atggcccgcc	tggtcgaccg	ccaacgacc	360
ccgcgccatt	gacgtcaata	atgacgtatg	ttcccatagt	aacgccaaata	gggactttcc	420
attgacgtca	atgggtggag	tatttacggg	aaactgcccc	cttggcagta	catcaagtgt	480

atcatatgcc	aagtaacgcc	cctattgacg	tcaatgacgg	taaatggccc	gcctggcatt	540
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ccctggttcc	tggaaacaatt	gctttttacag	atgcacatat	cgagggtgaac	atcacgtacg	1020
cggaaatactt	cgaaatgtcc	gttcggttgg	cagaagctat	gaaacgatat	gggctgaata	1080
caaatcacag	aatcgctcgt	tgcagtgaag	actctcttca	attcttttatg	ccggtgttgg	1140
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atztatcagg	gttattgtct	catgagcgga	tacatatttg	aatgtattta	gaaaaataaa	6960
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<210> 11
 <211> 47
 <212> DNA
 <213> Homo sapiens

<400> 11	atcactctct	ttaatcaacta	ctcacattaa	cctcaactcc	tgccaca	47
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<210> 12
 <211> 307

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<212> DNA
<213> Homo sapiens

<400> 12
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taaaactata aatatggatc ttttatgatt ctttttgtaa gccctagggg ctctaaaatg      180
gtttacctta tttatcccaa aaatatattat tattatgttg aatgttaaata atagtatcta      240
tgtagattgg ttagtaaaac tatttaataa atttgataaa tataaaaaaa aaaaacaaaa      300
aaaaaa                                           307

<210> 13
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<212> RNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)..(15)
<223> n = a, u, g or c

<400> 13
nauuuauuuu uuuan                                           15

<210> 14
<211> 62
<212> DNA
<213> Homo sapiens

<400> 14
ttctgccctc gagcccaccg ggaacgaaag agaagctcta tctcgccctcc aggagcccag      60
ct                                           62

<210> 15
<211> 427
<212> DNA
<213> Homo sapiens

<400> 15
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acactatttt aattattttt aatttatttaa tatttaaata tgtgaagctg agttaattta      180
tgtaagtcac atttatatatt ttaagaagta ccacttgaaa cattttatgt attagttttg      240
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tcttggaag tgtaggctta cctcaaataa atggctaact tatacatatt tttaaagaaa      360
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aaaattc                                           427

<210> 16
<211> 11693
<212> DNA
<213> Artificial Sequence

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<220>

<223> Description of Artificial Sequence: Expression Vector pCMR2

<400> 16

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c caacgaccc	cgcgccattg	acgtcaataa	tgacgtatgt	tcccatagta	acgccaatag	180
g gacttttcca	ttgacgtcaa	tgggtggagt	at ttacggta	aactgcccac	ttggcagtac	240
a tcaagtgt	tcatatgcoa	agtccgcccc	ctattgacgt	caatgacggt	aaatggccccg	300
c ctggcatta	tgcccagtac	atgaccttac	gggactttcc	tacttggcag	tacatctacg	360
t attagtc	cgctattacc	atggtgatgc	ggtttttggca	gtacaccaat	gggcgtggat	420
a gcgggtttga	ctcacgggga	tttccaagtc	tccaccccat	tgacgtcaat	gggagtttgt	480
t ttggcacca	aatcaaacgg	gactttccaa	aatgtcgtaa	taaccccgcc	ccgttgacgc	540
a aatgggccc	taggcgtgta	cggtgggagg	tctatataag	cagagctcgt	ttagtgaacc	600
g taagctttc	ggcgcgccac	ggtaccatgg	gatccgaaga	cgccaaaaac	ataaagaaag	660
g cccggcgcc	attctatcct	ctagaggatg	gaaccgctgg	agagcaactg	cataaggcta	720
t gaagagata	cgccttggtt	cctggaacaa	ttgcttttac	agatgcacat	atcgaggtga	780
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t gcgggtggt	gggcgcgtta	tttatcggag	ttgcagttgc	gcccgcgaac	gacatttata	960
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<223> n = a, t, g or c

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<210> 41
<211> 229
<212> DNA
<213> Homo sapiens

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cggagagggg cgccacgccg ccgtggccgc agatttgaaa gaagccgaca ctaaaccacc 180
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<210> 42
<211> 233
<212> DNA
<213> Homo sapiens

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<400> 42
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aatatgatct attttatgca tattgtttat aaagacacat ttacaattta cttttaatat 180
taaaaattac catattatga aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaa 233

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<210> 43

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<211> 349
 <212> DNA
 <213> Homo sapiens

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 gtgagctggg tggccttaac agcagggtg gtggctggaa cgcgggtgcc agatggtcag 300
 ttctgcctg tggcctgctg cctggacccc ggaggagcca gctacagct 349

<210> 44
 <211> 337
 <212> DNA
 <213> Homo sapiens

<400> 44
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 catcaccatg ggaggtgggg cctcaatcta aggccttccc tgtcagaagg gggttgtggc 180
 aaaagccaca ttacaagctg ccacccctc cccgtttcag tggacctgt gccaggtgc 240
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 cactttcaaa aaaaaaaaaa aaaaaaaaaa aaaaaaa 337

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 <211> 1700
 <212> DNA
 <213> Homo sapiens

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 cccacaactt gtacaacatt ggtgcttccct gcaagggcta cagaactatt tgatacgaac 300
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1700

<210> 46

<211> 2419

<212> DNA

<213> Homo sapiens

<400> 46

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<211> 297

<212> DNA

<213> Homo sapiens

<400> 47

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ccccacctc	tggacttgcc	tttccttctc	ttctccgct	gtggagggag	ccagcgctta	240
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<210> 48
 <211> 1192
 <212> DNA
 <213> Homo sapiens

<400> 48						
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attgtacaaa	tttttcattc	cttttgctct	ttgtggttgg	atctaact	aactgtattg	1140
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 <211> 197
 <212> DNA
 <213> Homo sapiens

<400> 49						
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caagcgacgc	cgggaaa					197

<210> 50
 <211> 3293
 <212> DNA
 <213> Homo sapiens

<400> 50						
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 <212> DNA
 <213> Homo sapiens

<400> 51						
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cqqq						424

<210> 52
 <211> 706
 <212> DNA
 <213> Homo sapiens

<400> 52
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cccgcgcgc	gcccaggacc	ggccgcgcgc	ccgcaggcgc	ccgcgcgcgc	gcgcgcgc	238

<210> 62
 <211> 547
 <212> DNA
 <213> Homo sapiens

<400> 62						
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ctttttactt	ttgggggttt	gtttttgttc	tgaactttcc	tggtaccttt	tcagggtctga	180
tgtcacatgt	agggtggcgtg	tatgagtggg	gacgggcctg	ggtcttgggg	actggagggc	240
aggggtcctt	ctgcccctgg	ggtcccaggg	tgctctgcct	gctcagccag	gcctctcctg	300

ggagccactc	gcccagagac	tcagcttggc	caacttgggg	ggctgtgtcc	acccagcccg	360
cccgtcctgt	gggctgcaca	gctcaccttg	ttccctcctg	ccccggttcg	agagccgagt	420
ctgtgggcac	tctctgcctt	catgcacctg	tcctttctaa	caagtgcctt	tcaactgtaa	480
tcacaacatc	ctgactccgt	catttaataa	agaaggaaca	tcaggcatgc	taaaaaaaaa	540
aaaaaaa						547

<210> 63
 <211> 102
 <212> DNA
 <213> Homo sapiens

<400> 63						
gaattccggc	aaacatgagg	cagctgccag	ccggcctggg	cagtcttgct	tgcctcggct	60
gtgaagtggg	gaggctggca	acagttttct	tcagcgccca	gg		102

<210> 64
 <211> 2017
 <212> DNA
 <213> Homo sapiens

<400> 64						
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ctgcctccca	cgctgggaca	cagaccggcc	gcattgtctg	atggcagaag	cgtctccctt	1920
gccacggcct	gggaggggtg	ttcctgttct	cagcatccac	taatatccag	tcctgtatat	1980
tttaataaaa	taaacttgac	aaaggaaaaa	aaaaccg			2017

<210> 65
 <211> 97

<212> DNA
<213> Homo sapiens

<400> 65
gtccaggaac tcctcagcag cgccctccttc agctccacag ccagacgccc tcagacagca 60
aagcctaccc ccgcgcgcgc ccctgcccgc cgcctgcg 97

<210> 66
<211> 1474
<212> DNA
<213> Homo sapiens

<400> 66
aagtctaattg atcatatttta tttattttata tgaaccatgt ctattaatttt aattattttaa 60
taatatattat attaaactcc ttatgttact taacatcttc tgtaacagaa gtcagtactc 120
ctgttgccga gaaaggagtc atacttgtga agacttttat gtcactactc taaagatttt 180
gctgttgctg ttaagtttgg aaaacagttt ttattctgtt ttataaacca gagagaaatg 240
agttttgacg tctttttact tgaatttcaa cttatattat aaggacgaaa gtaaagatgt 300
ttgaataactt aaacactatc acaagatgcc aaaatgctga aagtttttac actgtcgtatg 360
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agagtataaa ccttttttagt gtgactgtta aaacttcctt ttaaatacaa atgccaaatt 780
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tattttctta cctgaacttt tgcaagtttt caggtaaaac tcagctcagg actgctattt 1440
agctcctctt aagaagatta aaaaaaaaaa aaaa 1474

<210> 67
<211> 99
<212> DNA
<213> Homo sapiens

<400> 67
gcgcccggcc cccacccctc gcagcacccc gcgccccgcg ccctcccage cgggtccagc 60
cggagccatg gggccggagc cgcagtgcgc accatggag 99

<210> 68
<211> 614
<212> DNA
<213> Homo sapiens

<400> 68
tgaaccagaa ggccaagtcc gcagaagccc tgatgtgtcc tcagggagca gggaaggcct 60
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tgccaggaac ctgtcctaag gaaccttcct tctgtcttga gttcccagat ggctggaagg 180
ggctccagcct cgttggaaga ggaacagcac tggggaggtc ttgtggattc tgaggccctg 240


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cccaatgaga ctctaggggc cagtggatgc cacagcccag cttggccott tccttccaga 300
tcctgggtac tgaaagcctt agggaaagctg gcctgagagg ggaagcggcc ctaaggagg 360
gtctaagaac aaaagcgacc cattcagaga ctgtccctga aacctagtag tgccccccat 420
gaggaaggaa cagcaatggg gtcagtatcc aggctttgta cagagtgcct ttctgtttag 480
tttttacttt ttttgttttg ttttttttaa gacgaaataa agaccagggg gagaatgggt 540
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tatattttgg aaaa 614

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<210> 69
<211> 35
<212> DNA
<213> Artificial Sequence

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<220>
<223> Description of Artificial Sequence: Primer 1 for amplify VEGF 5'UTR

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<400> 69
aaagtcgacg taatcgcgga ggcttgggc agccgg 35

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<210> 70
<211> 30
<212> DNA
<213> Artificial Sequence

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<220>
<223> Description of Artificial Sequence: Primer 2 for amplify VEGF 5'UTR

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<400> 70
tttgcgactg gtcagctgcg ggatcccaag 30

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<210> 71
<211> 33
<212> DNA
<213> Artificial Sequence

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<220>
<223> Description of Artificial Sequence: Primer 3 for amplify VEGF 5'UTR

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<400> 71
aagtcgacgt aagagctcca gagagaagtc gag 33

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<210> 72
<211> 33
<212> DNA
<213> Artificial Sequence

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<220>
<223> Description of Artificial Sequence: Primer 4 for amplify VEGF 5'UTR

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<400> 72
aaaccggggc agcaaggcaa ggctccaatg cac 33

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<210> 73
<211> 39
<212> DNA
<213> Artificial Sequence

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<220>
 <223> Description of Artificial Sequence: Primer 5 for amplify VEGF 3'UTR

<400> 73
 gccgggcagg aggaaggagc ctccctcagg gtttgggga 39

<210> 74
 <211> 30
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Primer 6 for amplify VEGF 3'UTR

<400> 74
 ctgcactaga gacaaagacg tgatgttaat 30

<210> 75
 <211> 66
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Polylinker

<400> 75
 gaacaaatgt cgacgggggc ccctaggaga tctagcgctg gatcccccg gtagctcaug 60
 gaagac 66

<210> 76
 <211> 30
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Primer for luciferase amplification

<400> 76
 cggtgttggg cgcgttatatt atcgagttg 30

<210> 77
 <211> 30
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Primer for luciferase amplification

<400> 77
 ttggcgaaga atgaaaatag ggttggtact 30

<210> 78

<211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Primer for GAPDH amplification

 <400> 78
 ggtgaagggtc ggagtcaacg ga 22

 <210> 79
 <211> 21
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Primer for GAPDH amplification

 <400> 79
 gagggatctc gctcctggaa g 21

 <210> 80
 <211> 55
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: 5'UTR forward oligo

 <400> 80
 aaagtcgacg taaccgccag atttgaatcg cgggaccctg tggcagaggt ggcgg 55

 <210> 81
 <211> 54
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: 5'UTR reverse oligo

 <400> 81
 aaaggatccg ggcaacgtcg gggcacccat gccgccgccg ccacctctgc caac 54

 <210> 82
 <211> 40
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: 3'UTR forward oligo

 <400> 82
 aaagcggccg cggcctctgc cggagctgcc tggccccaga 40

 <210> 83
 <211> 37

<212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: 3'UTR reverse oligo

 <400> 83
 aaatctagac tcaggaacag ccgagatgac ctccaga 37

 <210> 84
 <211> 67
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: SL top oligonucleotide

 <400> 84
 ctagaagctt agggccgcgg atccgcgcgc ggttcgcgc gcgcggatcc gcggtagcaa 60
 gttagtc 67

 <210> 85
 <211> 68
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: SL bottom oligonucleotide

 <400> 85
 gactaagctt gctaccgcgg atccgcgcgc ggcgaaccgc gcgcggatcc gcggccctaa 60
 gcttctag 68

 <210> 86
 <211> 32
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: PCR primer (Sense/HindIII)

 <400> 86
 caagaagctt gcgcccggcc cccacccct cg 32

 <210> 87
 <211> 31
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: PCR primer (Antisense/NcoI)

 <400> 87
 agcccatggt gctcactgcg gctccggccc c 31

 <210> 88

<211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: PCR primer (Sense/BglII)

 <400> 88
 agactctgaa ccagaaggcc aa 22

 <210> 89
 <211> 36
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: PCR primer (Antisense/KpnI)

 <400> 89
 ctcggtacca gttttccaaa atatatttgc aaatgg 36

 <210> 90
 <211> 58
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: sense minus uORF HindIII primer

 <400> 90
 cccaagcttc gcgcccggcc cccaccct cgcagcacc cgcgccccgc gccctccc 58